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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/631,223	07/28/2003	Woohong Kim	84,949	3303
26384	7590 03/31/2006		EXAMINER	
NAVAL RESEARCH LABORATORY			MCPHERSON, JOHN A	
	ASSOCIATE COUNSEL (PATENTS) CODE 1008.2		ART UNIT	PAPER NUMBER
4555 OVERLOOK AVENUE, S.W.			1756	
WASHINGTON, DC 20375-5320			DATE MAILED: 03/31/2006	

Please find below and/or attached an Office communication concerning this application or proceeding.

			y
	Application No.	Applicant(s)	0
	10/631,223	KIM ET AL.	
Office Action Summary	Examiner	Art Unit	
	John A. McPherson	1756	
The MAILING DATE of this communication apperiod for Reply	opears on the cover sheet with	the correspondence address	ss
A SHORTENED STATUTORY PERIOD FOR REPI WHICHEVER IS LONGER, FROM THE MAILING I  - Extensions of time may be available under the provisions of 37 CFR 1 after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period  - Failure to reply within the set or extended period for reply will, by statu Any reply received by the Office later than three months after the maili earned patent term adjustment. See 37 CFR 1.704(b).	DATE OF THIS COMMUNIC.  .136(a). In no event, however, may a reput will apply and will expire SIX (6) MONTH te, cause the application to become ABA	ATION.  bly be timely filed  HS from the mailing date of this common NDONED (35 U.S.C. § 133).	
Status			
1) Responsive to communication(s) filed on 28.	July 2003 and 25 November	<u>2003</u> .	
2a) ☐ This action is <b>FINAL</b> . 2b) ☑ Th	is action is non-final.		
3) Since this application is in condition for allows	ance except for formal matte	rs, prosecution as to the me	erits is
closed in accordance with the practice under	Ex parte Quayle, 1935 C.D.	11, 453 O.G. 213.	
Disposition of Claims			
4) Claim(s) 18-41 is/are pending in the application	on.		
4a) Of the above claim(s) is/are withdra	awn from consideration.		
5) Claim(s) is/are allowed.			
6)⊠ Claim(s) <u>18-41</u> is/are rejected.			
7) Claim(s) is/are objected to.			
8) Claim(s) are subject to restriction and/	or election requirement.		
Application Papers			
9) ☐ The specification is objected to by the Examin	ner.	·	
10)⊠ The drawing(s) filed on 28 July 2003 is/are: a	ı)⊠ accepted or b)□ objecte	ed to by the Examiner.	
Applicant may not request that any objection to the	e drawing(s) be held in abeyanc	e. See 37 CFR 1.85(a).	
Replacement drawing sheet(s) including the corre	ction is required if the drawing(s	) is objected to. See 37 CFR 1	l.121(d).
11)☐ The oath or declaration is objected to by the E	Examiner. Note the attached	Office Action or form PTO-1	152.
Priority under 35 U.S.C. § 119			
12) Acknowledgment is made of a claim for foreig a) All b) Some * c) None of:	n priority under 35 U.S.C. §	119(a)-(d) or (f).	
<ol> <li>Certified copies of the priority documer</li> </ol>	nts have been received.		
2. Certified copies of the priority documer	·	<u></u>	
3. Copies of the certified copies of the pri	•	eceived in this National Sta	ge
application from the International Burea	, , , , , , , , , , , , , , , , , , , ,		
* See the attached detailed Office action for a lis	st of the certified copies not re	eceived.	
Attachment(s)	_		
Notice of References Cited (PTO-892)     Notice of Draftsperson's Patent Drawing Review (PTO-948)	4) Interview Su Paper No(s)/	mmary (PTO-413) /Mail Date	
<ol> <li>Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08 Paper No(s)/Mail Date <u>7/28/03</u>.</li> </ol>		ormal Patent Application (PTO-152	2)

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#### **DETAILED ACTION**

## **Double Patenting**

1. Applicant is advised that should claim 19 be found allowable, claim 25 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

## Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 18-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 18 recites the limitation "the unexposed regions" in line 4. There is insufficient antecedent basis for this limitation in the claim.

#### Claim Rejections - 35 USC § 102/103

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 18-21, 23-32 and 34-41 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over US 5,828,432 to Shashidhar et al. (Shashidhar). Shashidhar discloses a conducting substrate for use in a display device having a conducting polymer on the surface of a rigid, flexible, flat, curved or bent substrate, wherein the conducting polymer is preferably deposited in a pattern. See the abstract; column 3, lines 10-12; column 8, line 50 to column 9, line 2; and Figure 5. Furthermore, the conducting polymer layer preferably comprises polyaniline, polypyrrole or polythiophene, or derivatives of their monomers. See column 3, lines 40-63.

The patterned conductive polymer of the present invention appears to be the same or similar to that of the prior art, although produced by a different process, because the patterned conductive polymers of the present invention and the prior art comprise the same materials. Furthermore, like the patterned conductive polymer of the present invention, the patterned conductive polymer of the prior art has not been affected by any relatively harsh treatment which would increase its surface resistance.

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Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of the product does not depend upon its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable event though the prior art product was made by a different process. See MPEP 2113.

### Claim Rejections - 35 USC § 103

- 4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 18-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,828,432 to Shashidhar et al. (Shashidhar) in view of "Patterning Orgacon<sup>TM</sup> Film by Means of UV Lithography" [cited in the Information Disclosure Statement filed 7/28/03] (Agfa). The disclosure of Shashidhar is discussed above in paragraph 3. However, with respect to claims 22 and 33, Shashidhar does not disclose an embodiment wherein the conducting polymer comprises PEDOT:PPS.

Agfa discloses a patterned conductive film comprising PEDOT/PPS (poly (3,4) ethylenedioxythiophene / polystyrenesulfone acid). See [1] Introduction. It would have been obvious to one skilled in the requisite art to utilize PEDOT:PPS, as taught by Agfa, as the polythiophene derivative in the patterned conductive film of Shashidhar, because

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it is taught that PEDOT/PPS is a useful material for preparing patterned conductive polymer films, and it is taught that any derivative that produces a conducting polymer can be utilized as the conducting polymer of Shashidhar.

#### Information Disclosure Statement

- 5. Receipt of the Information Disclosure Statement filed 7/28/03 is acknowledged. However, only pages 1 and 3 of the reference "Patterning Orgacon<sup>TM</sup> Film by Means of UV Lithography" have been received. The Examiner requests that Applicant supply a complete copy of this reference with the response to this Office Action (the Examiner has reviewed 09/983,692, i.e. the parent of the present application, however a copy of this reference is not present in the parent file).
- 6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John A. McPherson whose telephone number is (571) 272-1386. The examiner can normally be reached on Monday through Friday, 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on (571) 272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

John A. McPherson Primary Examiner Art Unit 1756

JAM 3/24/06